IBM WORKPLAN

Phase I

Tasks to be performed by IBM	Duration
1. Mainframe Storage Configuration	1.5 weeks

Project Management

Configuration Planning

    Determine logical volume groups

    Document configuration

Prep attached servers

    Load ESS drivers

Configure ESS

Provide customer STORWATCH training

    This is your ESS - Function and Features

    Configuring your ESS using the STORWATCH Specialist

    Monitoring the performance of your ESS using the STORWATCH Specialist

2. SAN Design	4 - 6 weeks

Project Management

Gather required data

Understand business initiatives

Understand technical requirements

Understand SAN management requirements

Understand backup and recovery requirements

Architect a Storage Area Network fabric solution: storage, fabric, and management

Integrate the Veritas backup and recovery methodology into the SAN design

Develop a technology roll-out plan

3. Proof of Concept Implementation   3 - 5 Weeks

Project Management

Open attached Shark Configuration

Configuration of switch fabric

    Document open attached servers

    Verify all SAN fabric components

    Review cabling requirements

    Configure EFC-Manager for network communications

    Configure SAN fabric zone sets

    Configure any SAN fabric alias host names

    Create system connection diagrams

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4. NetBackup Installation   2 weeks

 Analyze customers current environment

   Review customer data storage environment and current capacity

   Review current planned outage window availability

  Review any current replication process in place today

  Review current staffing capabilities to manage new environment

   Determine restore requirements and application recovery issues

 Install and configure Netback-up software

Structure and run parallel backup/restore tests

Provide operational overview training

Verify acceptable function and performance

5. Install Tivoli Storage Network Manager   3 - 4 Weeks

   Phase 1 - Planning

   Discuss customer's current environment

   Identify host connectivity requirements

   Review installation process

   Determine configuration requirements

Phase 2 - Prerequisites

   Overview both Tivoli Kernel Services architecture & Tivoli Storage Network Manager;

   Review "Services Package"

   Review and verify project schedule

   Install DB2 software that was shipped with TSNM

   Verify a successful installation of the prerequisite software

Phase - 3 Installation

    Install Tivoli Storage Network Manager

    Install Tivoli Storage Network Manager agents

    Verify a successful installation of TSNM using the TSNM console and the Net View Lite

Summary:

The total anticipated timetable for Phase I is approximately 4 months. However, some of the work outlined in Phase 1 can be done simultaneously potentially resulting in a shorter implementation duration. Based on a January 2 start date we would complete Phase I well in advance of the stated requirement.

IBM Responsibilities:

IBM Project coordination provides direction and control of project personnel and a framework for project communications, reporting, procedural and/or contractual activity. In support of this project, IBM will provide a Services specialist who will be responsible for the following sub tasks:

Review the SOW, and any associated documents, with your Point of Contact;

Establish and maintain project communications through your Point of Contact;

Review and administer the Project Change Control Procedure with your Point of Contact;

Develop a Project Plan;

Resolve deviations from the Project Plan with your Point of Contact;

Coordinate and manage the technical activities of our project personnel;

Conduct regularly scheduled meetings with your project team to review project status;

Prepare status reports as needed; and a final report.

The State of Iowa Responsibilities:

Prior to the start of this effort, the State of Iowa will designate a person, called the State of Iowa Project Manager, who is primarily responsible for the project. All IBM communications will be addressed to the State of Iowa Project Manager who has the authority to act for The State of Iowa in all aspects of the contract. We expect that the

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State will also make available mainframe and open systems storage staff and network staff to provide information about your current environment and desired configurations. The State of Iowa Project Manager's responsibilities include:

 Prior to IBM coming on-site, The State of Iowa may be required to complete the Pre-visit document and return it to IBM.

Serve as the interface between the IBM project team and all The State of Iowa departments participating in this project.

Administer the Project Change Control Procedure with the IBM Project Manager.

Obtain and provide information, data, decisions and approvals, within two working days of IBM's request unless The State of Iowa and IBM agree to an extended response time.

Resolve deviations from project plans that may be caused by The State of Iowa

Help resolve and escalate project issues within the the State of Iowa organization, as necessary.

Identify and schedule the appropriate The State of Iowa personnel to participate in the engagement.

Provide the appropriate meeting facilities

 Be responsible for the content of any database, the selection and implementation of controls on its access and use, backup and recovery and the security of the stored data. This security will also include any procedures necessary to safeguard the integrity and security of software and data used in this project from access by unauthorized personnel;

Be responsible for the identification and interpretation of any applicable laws, regulations, and statutes that affect your existing application systems or programs that we will have access to during this project. It is your responsibility to assure that the systems and programs meet the requirements of those laws, regulations and statutes.

Additional Responsibilities:

The State of Iowa is responsible for providing IBM consultants with the information requested including completing the Pre-Visit documentation (SAN Design Phase). The State of Iowa is responsible for reviewing and evaluating IBM's recommendations. The State of Iowa is responsible for selecting and implementing the tactical and strategic recommendations as appropriate to their business objectives.

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Phase II

Tasks   **Duration**

These are estimated tasks, actual tasks will be dependent on the final SAN design.

1. SAN Design for Capitol Complex   4 - 6 weeks

Project Management

Gather required data
    Understand business initiatives
    Understand technical requirements
    Understand SAN management requirements
    Understand backup and recovery requirements

Architect a Storage Area Network fabric solution: storage, fabric, and management

Develop a technology roll-out plan

2. Proof of Concept Implementation (3.1.C.1.b.2)   3 - 5 Weeks
Project Management

Open attached Shark Configuration

Configuration of switch fabric
    Document open attached servers
    Verify all SAN fabric components
    Review cabling requirements
    Configure EFC-Manager for network communications
    Configure SAN fabric zone sets
    Configure any SAN fabric alias host names
    Create system connection diagrams

3. Capitol Complex Consolidation Implementation   3 - 5 Weeks
Additional Servers
Project Management

Open attached Shark Configuration

Configuration of switch fabric
    Document open attached servers
    Verify all SAN fabric components
    Review cabling requirements
    Configure EFC-Manager for network communications
    Configure SAN fabric zone sets
    Configure any SAN fabric alias host names

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Create system connection diagrams

Summary:

As the material provided in the RFP does not define the total number of servers to be included in the storage consolidation for the Capitol Complex (Phase II) we have based our estimates on a total of 50 Servers. The tasks involved in implementing any number of servers will remain the same; additional time would be required to implement more than 50 Servers. At the beginning of Phase II (3.1.C.1.b.1.a) the State will have defined for IBM the total number of servers to be consolidated and we will deliver a Statement of Work detailing the time expected to complete the consolidation. In general we anticipate the effort for Phase II to be less than 16 weeks.

Responsibilities:

Description of IBM and the State of Iowa's responsibilities will be the same as those described in the Phase I work plan, with dependencies on the final SAN design.

Phase III

Tasks   Duration

These are estimated tasks, actual tasks will be dependent on the final SAN design.

1. SAN Design for Capitol Complex   4 - 6 weeks

Project Management

Gather required data

   Understand business initiatives

   Understand technical requirements

   Understand SAN management requirements

   Understand backup and recovery requirements

Architect a Storage Area Network fabric solution: storage, fabric, and management

Develop a technology roll-out plan

2. Proof of Concept Implementation (3.1.C.1.c.2)   3 - 5 Weeks

Project Management

Open attached Shark Configuration

Configuration of switch fabric

   Document open attached servers

   Verify all SAN fabric components

   Review cabling requirements

   Configure EFC-Manager for network communications

   Configure SAN fabric zone sets

   Configure any SAN fabric alias host names

Create system connection diagrams

3. Three Data Center Consolidation Implementation   3 - 5 Weeks

(Additional Servers)

Project Management

Open attached Shark Configuration

Configuration of switch fabric

Document open attached servers

Verify all SAN fabric components

Review cabling requirements

Configure EFC-Manager for network communications

Configure SAN fabric zone sets

Configure any SAN fabric alias host names

Create system connection diagrams

Summary:

As the material provided in the RFP does not define the total number of servers to be included in the storage consolidation for the Three Data Centers (Phase III) we have based our estimates on a total of 50 Servers. The tasks involved in implementing any number of servers will remain the same, additional time would be required to implement more than 50 Servers. At the beginning of Phase III (3.1.C.1.d.1.a) the State will have defined for IBM the total number of servers to be consolidated and we will deliver a Statement of Work detailing the time expected to complete the consolidation.   In general we anticipate the effort for Phase II to be less than 16 weeks.

Responsibilities:
Description of The State of Iowa's responsibilities will be the same as those described in the Phase I work plan, with dependencies on the final SAN design.

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Phase IV

Tasks	Duration
1. Mainframe Storage Integration	1 to 2 weeks

Project Management

Configuration validation

    Validate required drivers are installed

    Review cabling requirements for SAN connectivity

    Document configuration

Configure ESS to SAN fabric

Summary:

The total anticipated timetable for Phase IV is anticipated to be less than 2 weeks.

IBM Responsibilities:

IBM Project coordination provides direction and control of project personnel and a framework for project communications, reporting, procedural and/or contractual activity. In support of this project, IBM will provide a Services specialist who will be responsible for the following sub tasks:

Review the SOW, and any associated documents, with your Point of Contact;

Establish and maintain project communications through your Point of Contact;

Review and administer the Project Change Control Procedure with your Point of Contact;

Develop a Project Plan;

Resolve deviations from the Project Plan with your Point of Contact;

IBM

Coordinate and manage the technical activities of our project personnel;

Conduct regularly scheduled meetings with your project team to review project status;

The State of Iowa Responsibilities

Prior to the start of this effort, the State of Iowa will designate a person, called the State of Iowa Project Manager, who is primarily responsible for the project. All IBM communications will be addressed to the State of Iowa Project Manager who has the authority to act for The State of Iowa in all aspects of the contract. The State of Iowa Project Manager's responsibilities include:

Serve as the interface between the IBM project team and all The State of Iowa departments participating in this project.

Administer the Project Change Control Procedure with the IBM Project Manager.

Obtain and provide information, data, decisions and approvals, within two working days of IBM's request unless The State of Iowa and IBM agree to an extended response time.

Resolve deviations from project plans that may be caused by The State of Iowa.

Help resolve and escalate project issues within The State of Iowa organization, as necessary.

Identify and schedule the appropriate The State of Iowa personnel to participate in the engagement.

Provide the appropriate meeting facilities

IBM understands the State modify, reorder, cease or cancel any of the Phases and may enter into additional contracts or perform some of the work and services themselves.

The above information describes how the project will be managed. Project control will managed with Project Change Requests (PCR) IBM will provide bi-weekly status reports for efforts two weeks in duration or more. In addition a number of the deliverables that a Status Report is the deliverable. A description of the expected deliverables is defined in Section 3.1.B. Where a Status Report is not noted if one is required, IBM will provide a report. We anticipate that during all the phases of the project, the State will be actively engaged in defining the requirements for services. We expect to respond to changing requirements through specific Statements of Work and Project Change Requests (PCR).

The following provides a detailed process to follow if a change in services required.
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A. A Project Change Request (PCR) will be the vehicle for communicating change. The PCR must describe the change, the rationale for the change and the effect the change will have on the project.

B. The designated Project Manager of the requesting party will review the proposed change and determine whether to submit the request to the other party.

C. Both Project Managers will review the proposed change and approve it for further investigation or reject it. IBM will specify any charges for such investigation. If the investigation is authorized, the Project Managers will sign the PCR which will constitute approval for the investigation charges. IBM will invoice the State of Iowa for any such charges. The investigation will determine the effect that the implementation of the PCR will have on price, schedule and other terms and conditions of the Agreement.

D. A written Change Authorization and/or Project Change Request (PCR) must be signed by both parties to authorize implementation of the investigated changes.